National Institute of Environmental Health Sciences

Winter storm-related injuries in Oklahoma, January 2007

Author(s): Piercefield E, Wendling T, Archer P, Mallonee S
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Abstract:

INTRODUCTION: A January 2007 ice storm occurred in Oklahoma, causing power outages and hazardous travel conditions. The objective of this investigation was to describe the nature of winter storm-related injuries among Oklahoma residents, to determine populations at risk, and to inform prevention-planning personnel. METHODS: Winter storm-related injuries were a temporarily reportable condition; all acute-care hospitals and the state medical examiner logged storm-related injuries and deaths during January 12-30, 2007. Medical records were retrospectively abstracted. Risk of injury was described by demographic group, injury type, and mechanism. RESULTS: Among 6,047 persons experiencing winter storm-related injuries, 74% were injured in falls, 13% in motor-vehicle collisions (MVCs), 8% while sledding, 1% by unintentional carbon monoxide poisoning, 1% in cleanup activities, and 3% by other mechanisms. Median age of injured persons was 39years. Persons aged >/Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 40 years were 1.4 times more likely to experience falls as the cause of injury than those aged < 40 years, and falls were twice as likely as other mechanisms to cause fractures among persons aged >/Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 40 years. Injured persons aged < 40 years were 2.2 times more likely to experience MVC-related injuries, and 19 times more likely to experience sledding-related injuries than persons aged >/Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 40 years. CONCLUSIONS: Younger persons were more likely injured in MVCs and sledding incidents, whereas older persons were more likely to experience falls and fractures. IMPACT ON INDUSTRY: Prevention messages for winter storm-related injuries should target winter-driving safety tips to younger adults and precautions regarding falls to older adults.

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Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Health Professional, Policymaker, Public

Early Warning System: ☑

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure : ☑

weather or climate related pathway by which climate change affects health

Extreme Weather Event

Extreme Weather Event: Other Extreme Event

Extreme Weather Event (other): Ice storm

Geographic Feature: ☑

resource focuses on specific type of geography

None or Unspecified

Geographic Location: ☑

resource focuses on specific location

United States

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Injury

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status, Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: Not specified

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content